"MEASUREMENT SHEETS"

Name of Work:- Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01

"FIRST AND PART BILL"

Name of Work:- Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01

Pre Measurement recorded on:

Item No	Discription of Item	No	Length	A.Breadth	Depth	Qty	Unit
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Item 19.1 of PWD SR 2018-						
	Vide premeasurement page no. 1					166.14	
					Present Qty	**166.14**	**Cum**
2	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 SR 2018-19						
	Vide premeasurement page no. 2					447.64	
					Present Qty	**447.64**	**Cum**
3	KSRB4.1.3: Providing and laying position plain cement concrete of Mix 1:4:8 with OPC cement @180Kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85 cum and fine aggregtes @ 0.57 cum machine mixed , concrete laid in layers not exeeeding 15 cms, thick, well compacted , in foundation , including cost of all materials, Labour , HOM of Machinery, Curing complete as per Specifications. Specifications No. KBS 4.1, 4.2 (P12/4.3). SR 2018-19						
	Vide premeasurement page no. 3 to 4					194.24	
					Present Qty	**194.24**	**Cum**
5	KSRB 4.9.2:providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications. Specification No. TMT bars Fe 500 KBS 4.6.3 Page No. 18/ Item No. 4.46/ PWD SR						
	Vide premeasurement page no. 5 to 7					5.76	
					Present Qty	**5.76**	**Tn**
12	KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregate /sand/kaner/ Moorum KSRRB M100-1 Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications MORTH -100/ Chapter 1 (Page No.133/ Item No 17.1) SR 2018-19						
	Vide premeasurement page no. 5 to 7					613.78	
					Present Qty	**613.78**	**Cum**

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(BBMP Yelahanka)
Yelahanka, Bangalore

Name of Work:- **Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01**

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
4	Providing laying palin / reinforced cement concrete for Box Drain walls of thicknes 10cm to 20 cm including cenmtering shuttering form work etc. complete as per approved drawiong and design MORTH Specification No. 1500,1700,2200 PCC M 20 Grade upto 0.75 m height using concrete mixture (KPWD SR 2018-19 Item No-37.59.2)						
	For Raft						
	For CC Drain						
	Road A	1	30.00	0.75	0.15	3.38	
		1	23.00	0.75	0.15	2.59	
	Road B	1	25.00	0.75	0.15	2.81	
	Road C	1	30.00	0.75	0.15	3.38	
		1	30.00	0.75	0.15	3.38	
		1	10.00	0.75	0.15	1.13	
	Road D	1	30.00	0.75	0.15	3.38	
		1	8.00	0.75	0.15	0.90	
		1	18.00	0.75	0.15	2.03	
	Road E	1	22.00	0.75	0.15	2.48	
	Vivekananda Road, LHS	1	30.00	0.75	0.15	3.38	
		1	30.00	0.75	0.15	3.38	
		1	19.00	0.75	0.15	2.14	
	Vivekananda Road, RHS	1	30.00	0.75	0.15	3.38	
		1	30.00	0.75	0.15	3.38	
		1	19.00	0.75	0.15	2.14	
	32nd cross	1	25.50	0.75	0.15	2.87	
	Thathappa house road	1	30.00	0.75	0.15	3.38	
	Karaga Poojari house road	1	12.00	0.75	0.15	1.35	
	Culvert 1	1	7.00	1.50	0.15	1.58	
	Culvert 2	1	7.00	1.50	0.15	1.58	
	For Wall						
	For CC Drain						
	Road A	2	30.00	0.15	0.45	4.05	
		2	23.00	0.15	0.45	3.11	
	Road B	2	25.00	0.15	0.45	3.38	
	Road C	2	30.00	0.15	0.45	4.05	
		2	30.00	0.15	0.45	4.05	
		2	10.00	0.15	0.45	1.35	
	Road D	2	30.00	0.15	0.45	4.05	
		2	8.00	0.15	0.45	1.08	
		2	18.00	0.15	0.45	2.43	
	Road E	2	22.00	0.15	0.45	2.97	

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
	Vivekananda Road, LHS	2	30.00	0.15	0.45	4.05	
		2	30.00	0.15	0.45	4.05	
	Vivekananda Road, RHS	2	19.00	0.15	0.45	2.57	
		2	30.00	0.15	0.45	4.05	
		2	30.00	0.15	0.45	4.05	
	32nd cross	2	19.00	0.15	0.45	2.57	
	Thathappa house road	2	25.50	0.15	0.45	3.44	
	Karaga Poojari house road	2	12.00	0.15	0.45	1.62	
		2	7.00	0.15	0.45	0.95	
		2	7.00	0.15	0.45	0.95	
					Present Qty	**116.786**	**Cum**
					Limit Qty	**113.21**	**Cum**

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Name of Work:- **Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01**

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
1	Providing and Fixing **RCC pre cast covering Slab of 100mm thick** for drains in cement concrete M20 using graded grinite jelly 20mm and down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in charge. (Data Rate)						
	For CC Drain						
	Road A	1	30.00	0.75		22.50	
		1	21.85	0.75		16.39	
	Road B	1	25.00	0.75		18.75	
	Road C	1	30.00	0.75		22.50	
		1	30.00	0.75		22.50	
		1	10.00	0.75		7.50	
	Road D	1	30.00	0.75		22.50	
		1	8.00	0.75		6.00	
		1	18.00	0.75		13.50	
	Road E	1	22.00	0.75		16.50	
	Vivekananda Road, LHS	1	30.00	0.75		22.50	
		1	30.00	0.75		22.50	
		1	19.00	0.75		14.25	
	Vivekananda Road, RHS	1	30.00	0.75		22.50	
		1	30.00	0.75		22.50	
		1	19.00	0.75		14.25	
	32nd cross	1	25.50	0.75		19.13	
	Thathappa house road	1	30.00	0.75		22.50	
	Karaga Poojari house road	1	12.00	0.75		9.00	
					Present Qty	**337.76**	**Sqm**
					Limit Qty	**312.75**	**Sqm**

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Name of Work:- Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
7	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge						
	For CC Culvert Top Covering Slab						
	Culvert 1	1	7.00	1.50		10.50	
	Culvert 2	1	7.00	1.50		10.50	
	Slab over existing culvert	1	2.00	1.50		3.00	
					Present Qty	**24.00**	**Sqm**

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Name of Work:- Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
8	Cement concrete pavement.Construction of un-reinforced plain **cement concrete pavement,** thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix **M20/M30** , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound.						
	CC Drain						
	Side walls	2	25.50	0.15	0.60	4.59	
		1	7.00	1.80	0.20	2.52	
		2	7.00	0.25	0.70	3.46	
		1	7.00	1.60	0.20	2.52	
		2	7.00	0.28	0.70	3.46	
	CC Road						
	Pujarappa house Rd	1	30.00	3.58	0.15	16.09	
		1	14.40	1.97	0.15	4.25	
	2nd main, 9th A cross	1	15.00	3.62	0.15	8.15	
		1	12.00	5.38	0.15	9.68	
		1	9.00	3.45	0.15	4.66	
	4th main, 2nd cross	1	3.90	1.00	0.15	0.59	
		1	4.50	2.05	0.15	1.38	
		1	2.00	3.00	0.15	0.90	
		1	3.50	3.20	0.15	1.68	
		1	4.00	3.30	0.15	1.98	
		1	5.60	3.10	0.15	2.60	
		1	8.30	3.10	0.15	3.86	
	Jayamangala house	1	6.50	3.20	0.15	3.12	
		1	12.00	3.00	0.15	5.40	
		1	11.50	3.50	0.15	6.04	
		1	30.00	3.08	0.15	13.86	
		1	7.00	3.08	0.15	3.23	
					Present Qty	**103.94**	**Cum**
					Qty Limited to	**103.84**	**Cum**

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Name of Work:Improvements to main road, cross roads and providing kerb stones at Vinayaka Nagara 1st, 2nd & 3rd cross roads in Kempegowda ward no - 01 and Improvements to roads and drains at Lake view layout and surrounding areas in Kempegowda ward no - 01 (Package-03)

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
9	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation etc.,complete (Item 5.30 KPWD SR 2018-19)						
	For Kerb Stone						
	Road A	1	30.00			30.00	
		1	23.00			23.00	
	Road B	1	25.00			25.00	
	Road C	1	18.00			18.00	
		1	30.00			30.00	
		1	10.00			10.00	
	Road D	1	30.00			30.00	
		1	8.00			8.00	
		1	18.00			18.00	
	Vivekananda Road, LHS	1	30.00			30.00	
		1	30.00			30.00	
		1	19.00			19.00	
	Vivekananda Road, RHS	1	30.00			30.00	
		1	30.00			30.00	
		1	19.00			19.00	
	32nd cross	1	25.50			25.50	
	Thathappa house road	1	30.00			30.00	
	Karaga Poojari house road	1	12.00			12.00	
						417.50	
					Present Qty	**927.00**	**Nos**

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Name of Work:Improvements to main road, cross roads and providing kerb stones at Vinayaka Nagara 1st, 5th 3rd cross roads in Kempegowda ward no - 01 and Improvements to roads and drains at Lake view layout and surrounding areas in Kempegowda ward no - 01 (Package-03)

Measurement recorded on:

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
10	KSRB 15-19.1 : Providing and applying ready mix priming coat over concrete / masonry / asbestos cement sheet / plastered surfaces including preparing the surface after thoroughly cleaning of oil, grease, dirt and other foreign matter, and sand papering including cost of materials, labour, complete as per specifications. (Item No- 15.80 of KPWD SR 2018-19)						
	For Kerb Stone						
	Road A	1	30.00		0.40	12.00	
		1	23.00		0.40	9.20	
	Road B	1	25.00		0.40	10.00	
	Road C	1	18.00		0.40	7.20	
		1	30.00		0.40	12.00	
		1	10.00		0.40	4.00	
	Road D	1	30.00		0.40	12.00	
		1	8.00		0.40	3.20	
		1	18.00		0.40	7.20	
	Vivekananda Road, LHS	1	30.00		0.45	13.50	
		1	30.00		0.45	13.50	
		1	19.00		0.40	7.60	
	Vivekananda Road, RHS	1	30.00		0.40	12.00	
		1	30.00		0.40	12.00	
		1	19.00		0.40	7.60	
	32nd cross	1	25.50		0.40	10.20	
	Thathappa house road	1	30.00		0.40	12.00	
	Karaga Poojari house road	1	12.00		0.45	5.40	
					Present Qty	**170.00**	**Sqm**

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Name of Work:- Improvements to roads and drains at Maruthinagara 4th main 1st and 2nd cross roads and surrounding areas in Kempegowda ward no - 01 and Improvements to roads and drains at Maruthinagara 2nd main 9th A cross road and surrounding areas in Kempegowda ward no - 01

Measurement Recorded on :

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
11	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Item 24.1 of KPWD SR 2018-19)						
	For Kerb Stone						
	Road A	1	30.00		0.40	12.00	
		1	23.00		0.40	9.20	
	Road B	1	25.00		0.40	10.00	
	Road C	1	18.00		0.40	7.20	
		1	30.00		0.40	12.00	
		1	10.00		0.40	4.00	
	Road D	1	30.00		0.40	12.00	
		1	8.00		0.40	3.20	
		1	18.00		0.40	7.20	
	Vivekananda Road, LHS	1	30.00		0.45	13.50	
		1	30.00		0.45	13.50	
		1	19.00		0.40	7.60	
	Vivekananda Road, RHS	1	30.00		0.40	12.00	
		1	30.00		0.40	12.00	
		1	19.00		0.40	7.60	
	32nd cross	1	25.50		0.40	10.20	
	Thathappa house road	1	30.00		0.40	12.00	
	Karaga Poojari house road	1	12.00		0.45	5.40	
					Present Qty	**170.00**	**Sqm**

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